PCT10

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/088,952

DATE: 09/11/2002
TIME: 11:26:05

Input Set : A:\Nih405-1.app
Output Set: N:\CRF4\09112002\J088952.raw

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ENTERED

<110> APPLICANT: Leppla, Stephen H.
Liu, Shi-Hui
Netzel-Arnett, Sarah
Hansen-Birkendal, Henning
Bugge, Thomas
The Government of the United States of America
as represented by the Secretary of the
Deapartment of Health and Human Services
<120> TITLE OF INVENTION: Mutated Anthrax Toxin Protective Antigen Proteins That
Specifically Target Cells Containing High Amounts of
Cell-Surface Metalloproteinases or Plasminogen
Activator Receptors
<130> FILE REFERENCE: 015280-405100US
<140> CURRENT APPLICATION NUMBER: US 10/088,952
<141> CURRENT FILING DATE: 2002-03-22
<150> PRIOR APPLICATION NUMBER: US 60/155,961
<151> PRIOR FILING DATE: 1999-09-24
<150> PRIOR APPLICATION NUMBER: WO PCT/US00/26192
<151> PRIOR FILING DATE: 2000-09-22
<160> NUMBER OF SEQ ID NOS: 28
<170> SOFTWARE: PatentIn Ver. 2.1
<210> SEQ ID NO: 1
<211> LENGTH: 4
<212> TYPE: PRT
<213> ORGANISM: Artificial Sequence
<220> FEATURE:
<223> OTHER INFORMATION: Description of Artificial Sequence:furin-like
protease cleavage sequence
<400> SEQUENCE: 1
Arg Lys Lys Arg
1
<210> SEQ ID NO: 2
<211> LENGTH: 8
<212> TYPE: PRT
<213> ORGANISM: Artificial Sequence
<220> FEATURE:
<223> OTHER INFORMATION: Description of Artificial Sequence:matrix
metalloproteinase (MMP)-recognized cleavage site,
gelatinase favorite substrate sequence
<400> SEQUENCE: 2
Gly Pro Leu Gly Met Leu Ser Gln
1 5
<210> SEQ ID NO: 3

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<211> LENGTH: 8
<212> TYPE: PRT
<213> ORGANISM: Artificial Sequence
<220> FEATURE:
<223> OTHER INFORMATION: Description of Artificial Sequence:matrix
metalloproteinase (MMP)-recognized cleavage site,
gelatinase favorite substrate sequence
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Gly Pro Leu Gly Leu Trp Ala Gln
1 5
<210> SEQ ID NO: 4
<211> LENGTH: 9
<212> TYPE: PRT
<213> ORGANISM: Artificial Sequence
<220> FEATURE:
<223> OTHER INFORMATION: Description of Artificial Sequence:tissue-type
plasminogen activator (t-PA) and urokinase-type
(u-PA) recognized cleavage site, physiological
substrate sequence
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Pro Cys Pro Gly Arg Val Val Gly Gly
1 5
<210> SEQ ID NO: 5
<211> LENGTH: 7
<212> TYPE: PRT
<213> ORGANISM: Artificial Sequence
<220> FEATURE:
<223> OTHER INFORMATION: Description of Artificial Sequence:urokinase-type
plasminogen activator (u-PA)-recognized cleavage
site, favorite sequence
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Pro Gly Ser Gly Arg Ser Ala
1 5
<210> SEQ ID NO: 6
<211> LENGTH: 7
<212> TYPE: PRT
<213> ORGANISM: Artificial Sequence
<220> FEATURE:
<223> OTHER INFORMATION: Description of Artificial Sequence:urokinase-type
plasminogen activator (u-PA)-recognized cleavage
site, favorite sequence
<400> SEQUENCE: 6
Pro Gly Ser Gly Lys Ser Ala
1 5
<210> SEQ ID NO: 7
<211> LENGTH: 7
<212> TYPE: PRT
<213> ORGANISM: Artificial Sequence
<220> FEATURE:

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    129       plasminogen activator (t-PA)-recognized cleavage
    130       site, favorite sequence
    132 <400> SEQUENCE: 7
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    134   1               5
    137 <210> SEQ ID NO: 8
    138 <211> LENGTH: 18
    139 <212> TYPE: DNA
    140 <213> ORGANISM: Artificial Sequence
    142 <220> FEATURE:
    143 <223> OTHER INFORMATION: Description of Artificial Sequence:5' primer F
    145 <400> SEQUENCE: 8                                                    18
    146 aaagqagaac gtatatga
    149 <210> SEQ ID NO: 9
    150 <211> LENGTH: 30
    151 <212> TYPE: DNA
    152 <213> ORGANISM: Artificial Sequence
    154 <220> FEATURE:
    155 <223> OTHER INFORMATION: Description of Artificial Sequence:phosphorylated
    156       primer R1
    158 <220> FEATURE:
    159 <221> NAME/KEY: modified_base
    160 <222> LOCATION: (1)
    161 <223> OTHER INFORMATION: n = phosphorylated t
    163 <400> SEQUENCE: 9                                                    30
W--> 164 ngagttcgaa gatttttgtt ttaattctgg
    167 <210> SEQ ID NO: 10
    168 <211> LENGTH: 52
    169 <212> TYPE: DNA
    170 <213> ORGANISM: Artificial Sequence
    172 <220> FEATURE:
    173 <223> OTHER INFORMATION: Description of Artificial Sequence:mutagenic
    174       phosphorylated sequence primer H1
    176 <220> FEATURE:
    177 <221> NAME/KEY: modified_base
    178 <222> LOCATION: (1)
    179 <223> OTHER INFORMATION: n = phosphorylated g
    181 <400> SEQUENCE: 10                                                   52
W--> 182 ngaccattag gaatgtggag tcaaagtaca agtgctggac ctacggttcc ag
    185 <210> SEQ ID NO: 11
    186 <211> LENGTH: 21
    187 <212> TYPE: DNA
    188 <213> ORGANISM: Artificial Sequence
    190 <220> FEATURE:
    191 <223> OTHER INFORMATION: Description of Artificial Sequence:reverse primer
    192       R2
    194 <400> SEQUENCE: 11                                                   21
    195 acgtttatct cttattaaaa t
```

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Input Set : A:\Nih405-1.app
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<210> SEQ ID NO: 12
<211> LENGTH: 52
<212> TYPE: DNA
<213> ORGANISM: Artificial Sequence
<220> FEATURE:
<223> OTHER INFORMATION: Description of Artificial Sequence:phosphorylated mutagenic primer H2
<220> FEATURE:
<221> NAME/KEY: modified_base
<222> LOCATION: (1)
<223> OTHER INFORMATION: n = phosphorylated g
<400> SEQUENCE: 12
W--> 213 ngaccattag gattatgggc acaaagtaca agtgctggac ctacggttcc ag 52

<210> SEQ ID NO: 13
<211> LENGTH: 33
<212> TYPE: DNA
<213> ORGANISM: Artificial Sequence
<220> FEATURE:
<223> OTHER INFORMATION: Description of Artificial Sequence:phosphorylated reverse primer R1
<220> FEATURE:
<221> NAME/KEY: modified_base
<222> LOCATION: (1)
<223> OTHER INFORMATION: n = phosphorylated t
<400> SEQUENCE: 13
W--> 231 nggtgagttc gaagattttt gttttaattc tgg 33

<210> SEQ ID NO: 14
<211> LENGTH: 52
<212> TYPE: DNA
<213> ORGANISM: Artificial Sequence
<220> FEATURE:
<223> OTHER INFORMATION: Description of Artificial Sequence:mutagenic phosphorylated primer H1
<220> FEATURE:
<221> NAME/KEY: modified_base
<222> LOCATION: (1)
<223> OTHER INFORMATION: n = phosphorylated t
<400> SEQUENCE: 14
W--> 249 ngtccaggaa gagtagttgg aggaagtaca agtgctggac ctacggttcc ag 52

<210> SEQ ID NO: 15
<211> LENGTH: 8
<212> TYPE: PRT
<213> ORGANISM: Artificial Sequence
<220> FEATURE:
<223> OTHER INFORMATION: Description of Artificial Sequence:encoded by mutagenic phosphorylated primer H1
<400> SEQUENCE: 15
Cys Pro Gly Arg Val Val Gly Gly
1 5

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Input Set : A:\Nih405-1.app
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    267 <211> LENGTH: 46
    268 <212> TYPE: DNA
    269 <213> ORGANISM: Artificial Sequence
    271 <220> FEATURE:
    272 <223> OTHER INFORMATION: Description of Artificial Sequence:phosphorylated
    273       mutagenic primer H2
    275 <220> FEATURE:
    276 <221> NAME/KEY: modified_base
    277 <222> LOCATION: (1)
    278 <223> OTHER INFORMATION: n = phosphorylated g
    280 <400> SEQUENCE: 16
W--> 281 ngaagtggaa gatcagcaag tacaagtgct ggacctacgg ttccag                    46
    284 <210> SEQ ID NO: 17
    285 <211> LENGTH: 6
    286 <212> TYPE: PRT
    287 <213> ORGANISM: Artificial Sequence
    289 <220> FEATURE:
    290 <223> OTHER INFORMATION: Description of Artificial Sequence:encoded by
    291       phosphorylated mutagenic primer H2
    293 <400> SEQUENCE: 17
    294 Gly Ser Gly Arg Ser Ala
    295   1               5
    298 <210> SEQ ID NO: 18
    299 <211> LENGTH: 46
    300 <212> TYPE: DNA
    301 <213> ORGANISM: Artificial Sequence
    303 <220> FEATURE:
    304 <223> OTHER INFORMATION: Description of Artificial Sequence:phosphorylated
    305       mutagenic primer H3
    307 <220> FEATURE:
    308 <221> NAME/KEY: modified_base
    309 <222> LOCATION: (1)
    310 <223> OTHER INFORMATION: n = phosphorylated g
    312 <400> SEQUENCE: 18
W--> 313 ngaagtggaa aatcagcaag tacaagtgct ggacctacgg ttccag                    46
    316 <210> SEQ ID NO: 19
    317 <211> LENGTH: 6
    318 <212> TYPE: PRT
    319 <213> ORGANISM: Artificial Sequence
    321 <220> FEATURE:
    322 <223> OTHER INFORMATION: Description of Artificial Sequence:encoded by
    323       phosphorylated mutagenic primer H3
    325 <400> SEQUENCE: 19
    326 Gly Ser Gly Lys Ser Ala
    327   1               5
    330 <210> SEQ ID NO: 20
    331 <211> LENGTH: 46
    332 <212> TYPE: DNA
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RAW SEQUENCE LISTING ERROR SUMMARY DATE: 09/11/2002
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Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:9; N Pos. 1
Seq#:10; N Pos. 1
Seq#:12; N Pos. 1
Seq#:13; N Pos. 1
Seq#:14; N Pos. 1
Seq#:16; N Pos. 1
Seq#:18; N Pos. 1
Seq#:20; N Pos. 1